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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/568,198	05/15/2008	Christopher Martin Dawe	5926P046	8009

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EXAMINER

FINDLEY, CHRISTOPHER G

ART UNIT	PAPER NUMBER
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2621

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06/23/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/568,198	Applicant(s) DAWE ET AL.	
	Examiner CHRISTOPHER FINDLEY	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period **will** apply and **will** expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply **will**, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 32-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 32-50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 32-47, 49 and 50 are rejected under 35 U.S.C. 102(b) as being anticipated by Street (US 5936774 A).**

Re **claim 32**, Street discloses an stereoscopic display device, comprising: a display device for displaying a pixellated display image (Street: Fig. 4, light source 34); and a stereoscopic conversion screen (Street: Fig. 4, mask 35), wherein the conversion screen comprises an array of light guiding members, each light guiding member being associated with an underlying pixel or sub-array of pixels (Street: column 9, lines 12-19, the mask has a checker-board pattern, wherein half of the areas are opaque, blocking light, while the other half are transparent, allowing light to pass through), and wherein alternate rows of light guiding members are arranged to direct light from the associated pixel or sub-array of pixels to different viewing positions (Street: column 3, line 63-column 4, line 11), wherein the device further comprises a temporal multiplexing screen for directing images to different viewing locations in time multiplexed manner (Street: column 3, lines 32-34, mask regions dynamically switched on a video frame sequence basis).

Re **claim 33**, Street discloses that the temporal multiplexing screen comprises an array of movable light guiding members (Street: column 3, lines 32-34, mask regions dynamically switched on a video frame sequence basis).

Re **claim 34**, Street discloses that the movable light guiding members are electrostatically or electro magnetically controlled (Street: column 3, lines 37-40, mask is electrically switchable).

Re **claim 35**, Street discloses that the movable light guiding members have reflective or absorptive boundaries (Street: column 3, lines 37-40, some regions of the mask layer selectively block light from the viewer, thus absorbing it).

Re **claim 36**, Street discloses that the movable light guiding members comprise microscopic fibres (Street: column 9, lines 7-11, micro-optical structures may be used to mitigate horizontal line structure without any substantial loss of vertical resolution).

Re **claim 37**, Street discloses that the movable light guiding members comprise molecules that have temporary or permanent dipoles (Street: column 3, lines 37-40, mask is electrically switchable between two states).

Re **claim 38**, Street discloses that the movable light guiding members comprise molecules that contain magnetic elements or groups (Street: column 3, lines 37-40, mask is electrically switchable between two states, wherein transmitted electrical signals inherently include electromagnetic properties).

Re **claim 39**, Street discloses an stereoscopic display device, comprising: a display device for displaying a pixellated display image (Street: Fig. 4, light source 34); and a stereoscopic conversion screen (Street: Fig. 4, mask 35), wherein the conversion

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screen comprises an array of light guiding members, each light guiding member being associated with an underlying pixel or sub-array of pixels (Street: column 9, lines 12-19, the mask has a checker-board pattern, wherein half of the areas are opaque, blocking light, while the other half are transparent, allowing light to pass through), and wherein alternate rows of light guiding members are arranged to direct light from the associated pixel or sub-array of pixels to different viewing positions (Street: column 3, line 63-column 4, line 11), wherein the array of light guiding members are defined by a radiation sensitive sheet in which exposed light channels are defined (Street: column 9, lines 12-19, the mask has a checker-board pattern, wherein half of the areas are opaque, blocking light, while the other half are transparent, allowing light to pass through, further wherein visible light is electromagnetic radiation of a wavelength that is visible to the human eye and the ability to block or permit the light to pass indicates sensitivity to the visible light spectrum).

Re **claim 40**, Street discloses that the light guiding members comprise optical light-tubes (Street: Fig. 2, the transparent light channels are surrounded by opaque regions, thus forming tubes for the light to pass through).

Re **claim 41**, Street discloses that the array of light guiding members comprises a stack of rows of light guiding members (Street: Fig. 2, the mask is arranged in a checker-board pattern).

Re **claim 42**, Street discloses that each row of light guiding members comprises an arrangement of walls of opaque material defining a plurality of channels which are each directed towards a common view point (Street: Fig. 2, the transparent light

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channels are surrounded by opaque regions, thus forming tubes for the light to pass through).

Re **claim 43**, Street discloses that the array of light guiding members comprises a unitary screen formed from opaque material through which holes are formed at predetermined angles (Street: Fig. 2, the transparent light channels are surrounded by opaque regions, thus forming tubes for the light to pass through).

Re **claim 44**, Street discloses that the array of light guiding members are defined by an electro chromic arrangement, which is switch-able between stereoscopic and 2D modes of operation (Street: column 3, lines 37-40, mask is electrically switchable between transparent and opaque).

Re **claim 45**, Street discloses that the electro chromic arrangement comprises a plurality of electro chromic layers (Street: Fig. 2, the mask consists of a stack of rows of electrochromic elements).

Re **claim 46**, Street discloses a lenticular screen, comprising a array of lenses each extending in the row direction (Street: column 9, lines 27-40).

Re **claim 47**, Street discloses a stereoscopic display device, comprising: a display device for displaying a pixellated display image (Street: Fig. 4, light source 34); and a stereoscopic conversion screen (Street: Fig. 4, mask 35), wherein the conversion screen comprises an array of light guiding members, each light guiding member being associated with an underlying pixel or sub-array of pixels (Street: column 9, lines 12-19, the mask has a checker-board pattern, wherein half of the areas are opaque, blocking light, while the other half are transparent, allowing light to pass through), and wherein

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alternate rows of light guiding members are arranged to direct light from the associated pixel or sub-array of pixels to different viewing positions (Street: column 3, line 63-column 4, line 11), wherein the device further comprises raised vertical edge strips that conceal the left and right vertical margins of the image (Street: Fig. 4, the edges of lenticular screen 37 are raised).

Re **claim 49**, Street discloses that the stereoscopic conversion screen comprises a position adjustment arrangement (Street: column 9, lines 23-27, the mask allows lateral motion).

Re **claim 50**, Street discloses a method of generating an stereoscopic image, comprising: generating a display image in which at least two sub-images are encoded into the complete image, with each sub-image being provided to a plurality of rows of pixels (Street: column 3, lines 50-53); providing temporal multiplexing to direct images to different viewing locations in time- multiplexed manner (Street: column 3, lines 32-34); displaying the complete time-multiplexed image (Street: column 3, line 53-column 4, line 11); using a stereoscopic conversion screen to direct the output of different rows of pixels corresponding to the different sub-images to different viewing positions (Street: column 4, lines 12-46).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 48 is rejected under 35 U.S.C. 103(a) as being unpatentable over Street (US 5936774 A) in view of Brown et al. (US 20030016444 A1, hereinafter referred to as "Brown").

Re **claim 48**, Street does not specifically disclose that the stereoscopic conversion screen is manually removable from the display device. However, Brown discloses an autostereoscopic display with rotated microlens, wherein the display may be manufactured to retrofit a conventional display (Brown: paragraph [0061]), thus indicating that the autostereoscopic elements are manually removable from the display device. Since both Street and Brown relate to generation of autostereoscopic displays, one of ordinary skill in the art at the time of the invention would have found it obvious to combine the modular ability of Brown with the display aspects of Street in order to eliminate undesired effects in the stereoscopic conversion of traditional displays (Brown: paragraph [0018]).

Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTOPHER FINDLEY whose telephone number is (571)270-1199. The examiner can normally be reached on Monday-Friday (8:30 AM-5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha D. Banks-Harold can be reached on 571-272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Marsha D. Banks-Harold/
Supervisory Patent Examiner, Art Unit 2621

/Christopher Findley/